

METHODS AND SYSTEMS FOR CONTROLLING THE CONCENTRATION OF A COMPONENT IN A COMPOSITION WITH ABSORPTION SPECTROSCOPY

Abstract of Disclosure

Provided are methods and systems for controlling the concentration of a component in a composition, and semiconductor processing methods and systems. One exemplary method of controlling the concentration of a component in a composition involves: providing a composition which has a liquid portion, wherein the liquid portion contains a component to be monitored; performing an absorption spectroscopy measurement on a sample of the composition; and controlling the concentration of the component in the composition based on the absorption spectroscopy measurement using a feedback control loop. The invention allows for controlling the concentration of a component in a composition, for example, a corrosion inhibitor in a chemical planarization (CMP) chemical, as well as in pre- and post-CMP storage/treatment chemicals, and can provide real time, accurate process control in a simple and robust manner.

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